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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re PATENT APPLICATION of:

Confirmation Number: 8788

DURAND ET AL.

Application No.: 10/686,815

Group Art Unit: 3643

Filed: October 17, 2003

Examiner: Rowan, Kurt C.

Title: SYSTEM FOR TRAPPING FLYING INSECTS AND A METHOD FOR MAKING  
THE SAME

**APPEAL BRIEF**

United States Patent and Trademark Office  
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401 Dulany Street  
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Sir:

Applicant hereby submits this Appeal Brief appealing the rejection of claims 1-42 of the present application, the Notice of Appeal having been filed on August 5, 2005, and the Notice of Panel Decision from Pre-Appeal Brief Review having been mailed on September 27, 2005. A one-month extension of time is being filed herewith.

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**I. REAL PARTY IN INTEREST**

The real party in interest is the assignee, American Biophysics Corporation.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals, interferences, or judicial proceedings known to Appellants, the appellant's legal representatives, or Assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF THE CLAIMS**

Claims 1-42 stand rejected. The rejection of Claims 1-42 is being appealed.

**IV. STATUS OF AMENDMENTS**

An Amendment After Final was filed on June 3, 2005 and was entered by the Examiner for the purposes of appeal, as evidenced by the Examiner's Advisory Action mailed on June 28, 2005. The attached Appendix sets forth the claims currently pending in this application.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The subject matter of the application is generally directed to a device and method for attracting and capturing flying insects. While some prior art devices use carbon dioxide to attract flying insects, such devices are relatively expensive. Applicants have found a lower cost solution in providing a device that generates an outflow consisting essentially of ambient air from the surrounding atmosphere with an insect attractant diffused therein. In addition, Applicants have found that by

providing a supply of diffusible insect attractant in an attractant receptacle having at least one adjustable opening, the exposure of the insect attractant may be controlled, thereby controlling a rate of diffusion of the insect attractant.

**A. Independent Claim 1**

Independent claim 1 recites a device 10 for attracting and capturing flying insects. (Figure 1; paragraph [0029], lines 8-10.) The device 10 comprises a frame 14 (Figure 1; paragraph [0030], line 1) providing at least one outlet opening 30 (Figure 1; paragraph [0033], lines 1-3) and at least one inlet opening 26. (Figure 1; paragraph [0032], lines 5-8.) Each of the outlet 30 and inlet openings 26 are communicated to a surrounding atmosphere. (Figure 1; paragraph [0032], lines 2-3; paragraph [0033], lines 1-3.) An insect trap chamber 40 is communicated to the surrounding atmosphere through the at least one inlet opening 26. (Figure 3; paragraph [0036], lines 3-5.)

The device 10 also includes a supply of a diffusible insect attractant (Paragraph [0040], lines 1-2), and at least one airflow generator 42 that is operable to generate an outflow flowing outwardly to the surrounding atmosphere through the at least one outlet opening 30. (Figure 3; paragraph [0037], lines 9-13.) The outflow consists essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply. (Paragraph [0029], lines 2-4; paragraph [0040], lines 8-10.) The at least one airflow generator 42 is also operable to generate an inflow flowing inwardly from the surrounding atmosphere through the at least one inlet opening 26 and then into the insect trap chamber 40, to enable the inflow to draw insects attracted to the device 10 by the insect attractant diffused in the outflow into the insect trap chamber 40. (Figure 3; paragraph [0037], lines 2-13.)

The device 10 also includes an attractant receptacle 50 in which the supply of diffusible insect attractant is received. (Figure 4, paragraph [0040], lines 1-2.) The attractant receptacle 50 is positioned such that the outflow flows through the receptacle 50 for exposure to the insect attractant. (Figure 3, paragraph [0040], lines 2-10.) The attractant receptacle 50 is constructed to enable the insect attractant to be removed therefrom for replacement. (Paragraph [0048], lines 11-13.) An electrically-powered heater is disposed proximate the attractant receptacle 50, the heater is operable to heat the supply of the diffusible insect attractant in the attractant receptacle 50 above ambient temperature so as to facilitate diffusion of the insect attractant in the outflow. (Paragraph [0041], lines 1-9.)

**B. Independent Claim 26**

Independent claim 26 recites a method for attracting and capturing flying insects. (Paragraph [0029], lines 8-11.) The method comprises providing a device 10 comprising an insect trap chamber 40 (Figure 3; paragraph [0036], lines 3-5), a supply of a diffusible insect attractant (Paragraph [0040], lines 1-2), at least one electrically-powered airflow generator 42 (Figure 3; paragraph [0037], lines 5-9), an attractant receptacle 50 in which the supply of the diffusible insect attractant is received (Figure 4, paragraph [0040], lines 1-2), and an electrically-powered heater disposed proximate the attractant receptacle 50. (Paragraph [0041], lines 1-9.) The method also includes heating the supply of the diffusible insect attractant above ambient temperature with the electrically-powered heater to facilitate diffusion of the insect attractant. (Paragraph [0041], lines 1-5.)

The method further includes generating, with the at least one airflow generator, an outflow flowing outwardly through at least one outflow opening provided on the device and communicated to a surrounding atmosphere (Paragraph

[0037], lines 11-13), the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply thereof. (Paragraph [0029], lines 2-4; paragraph [0040], lines 8-10.)

The method also includes drawing, with the at least one airflow generator, an inflow flowing inwardly through at least one inflow opening and then into the insect trap chamber (Paragraph [0037], lines 9-11), the at least one inflow opening being provided on the device and communicated to the surrounding atmosphere (Figure 1; paragraph [0032], lines 5-8), thereby enabling the inflow to draw insects attracted to the device by the insect attractant diffused in the outflow into the insect trap chamber (Figure 3; paragraph [0034], lines 1-7). The method further includes flowing the outflow through the attractant receptacle for exposure to the insect attractant. (Figure 3; paragraph [0040], lines 1-2.)

### **C. Independent Claim 32**

Independent claim 32 recites a device 10 for capturing flying insects. (Figure 1; paragraph [0029], lines 8-10.) The device 10 comprises a frame 14 (Figure 1; paragraph [0030], line 1) providing at least one inlet opening 26 communicated to a surrounding atmosphere (Figure 1; paragraph [0032], lines 5-8), an insect trap chamber 40 communicated to the surrounding atmosphere through the at least one inlet opening 26 (Figure 3; paragraph [0036], lines 3-5), and a supply of a diffusible insect attractant. (Paragraph [0040], lines 1-2.)

The device 10 also includes an attractant receptacle 50. (Figure 4, paragraph [0040], lines 1-2.) The supply of the diffusible insect attractant is received within the attractant receptacle. (Paragraph [0040], lines 1-2.) The attractant receptacle has at least one adjustable opening 66, 74. (Figure 5; paragraph [0049], lines 1-12.) The adjustable opening 66, 74 is selectively adjustable so as to control exposure of the

insect attractant, thereby controlling a rate of diffusion of the insect attractant. (Paragraph [0049], lines 11-13.)

The device 10 further includes at least one airflow generator 42 is operable to generate an inflow flowing inwardly from the surrounding atmosphere through the at least one opening 26 and then into the insect trap chamber 40, to enable the inflow to draw insects attracted to the device 10 by the insect attractant into the insect trap chamber 40. (Figure 3; paragraph [0037], lines 2-13.)

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-42 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,145,243 to Wigton et al. (“Wigton”) in view of U.S. Patent No. 6,443,434 to Prather (“Prather”). The grounds of rejection to be reviewed on appeal are whether claims 1-42 are obvious under 35 U.S.C. §103(a) over Wigton in view of Prather.

## **VII. ARGUMENT**

### **A. SUMMARY OF THE ARGUMENT**

A *prima facie* case of obviousness has not been made because the combination of Wigton and Prather fails to disclose each and every limitation of independent claims 1, 26, and 32.

Specifically, the combination of Wigton and Prather cannot arguably be regarded as having an outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein, as recited by independent claims 1 and 26, and dependent claim 37. The device of Wigton combusts a hydrocarbon fuel to generate an exhaust gas containing an elevated amount of carbon dioxide for use as an insect attractant and also teaches that an

additional chemical insect attractant may be used with the carbon dioxide. This exhaust gas is clearly not ambient air. The Examiner used Prather for its teaching of using a heater for heating a deer attractant to improve diffusion of the deer attractant into air. The combination of Wigton and Prather would simply add a heater to the open vial of the chemical attractant in Wigton. This combination would still not meet the claimed requirement of an outflow consisting essentially of ambient air with the insect attractant diffused therein, as the outflow would still exhaust gas of Wigton's combustion device as a significant component.

In addition, the device of independent claim 1 includes an attractant receptacle that is positioned such that the outflow flows through the receptacle for exposure to the insect attractant and the method of independent claim 26 includes flowing the outflow through the attractant receptacle for exposure to the insect attractant. Both Wigton and Prather teach the use of an open vial that allows a chemical attractant (for insects in Wigton and for deer in Prather) to evaporate into its surroundings. Neither reference teaches that an outflow flows through the receptacle, as claimed.

Moreover, neither Wigton nor Prather teaches a device for attracting and capturing flying insects that includes an attractant receptacle having at least one adjustable opening so as to control the exposure of the insect attractant, as recited in independent claim 32, and dependent claims 11, and 29.

As such, the combination of Wigton and Prather cannot make independent claims 1, 26, and 32 obvious. Claims 2-25 depend from claim 1, claims 27-31 depend from claim 26, and claims 33-42 depend from claim 32. Because these dependent claims include all of the features of the claims from which they depend, claims 2-25, 27-31, and 33-42 are also patentable over Wigton in view of Prather. *See* MPEP § 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim

depending therefrom is nonobvious.”) Moreover, dependent claims 2, 12, 13, 15, 16, 18, 19, 27, 33 contain additional features that are not disclosed or suggested by Wigton or Prather, and are therefore patentable over Wigton in view of Prather for the additional reasons discussed below.

## **B. DETAILED DISCUSSION OF THE ARGUMENT**

### **1. A *Prima Facie* Case of Obviousness Has Not Been Made by the Examiner (Claims 1-42)**

In rejecting claims under 35 U.S.C. § 103(a), an Examiner bears an initial burden of presenting a *prima facie* case of obviousness. A *prima facie* case of obviousness is established only if 1) there is a suggestion or motivation to combine reference teachings; 2) there is a reasonable expectation of success; and 3) the prior art references must teach or suggest all of the claim limitations. MPEP §2143. As discussed in greater detail below, the Examiner has not met this burden because the Wigton and Prather references do not teach or suggest, either alone or in combination, all of the claim limitations recited in claims 1-42.

### **2. Applicants’ Use of “Consisting Essentially Of” Precludes the Addition of Excess Carbon Dioxide to the Claims (Claims 1, 26, 37)**

Independent claims 1 and 26, and dependent claim 37 each specifically recite

...the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein...

(emphasis added). The use of “consisting essentially of” as a transitional phrase is to be interpreted as limiting the scope of a claim to the specified materials ““and those that do not materially affect the basic and novel characteristic(s)’ of the claimed invention.” MPEP § 2111.03, *quoting In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original). *See also In re De Lajarte*, 143 USPQ 256, 258-59 (CCPA 1964) (the appellant has burden of showing the basic and novel characteristics of his invention, which may be met by pointing out the characteristic in



his specification and claims); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. Pat. App. & Int. 1948) (“consisting essentially of” three ingredients excluded a fourth ingredient in the prior art because the fourth ingredient materially changed “the fundamental character of the three-ingredient composition” of the claims).

The insect trapping device of Wigton “generates its own insect attractants of carbon dioxide (CO<sub>2</sub>) heat and water vapor through catalytic conversion of a hydrocarbon fuel in a combustion chamber.” (Wigton at Abstract.) Moreover, Applicants specifically discussed Wigton in the background section of the specification (*see* paragraphs [0015] and [0016]) and the desire to provide a system that is of significantly lower cost so it would be available to more consumers. It is the Examiner’s position that “carbon dioxide does not materially affect the basic and novel characteristic of the claimed invention.” (Advisory Action mailed June 28, 2005.)

To the contrary, as discussed at paragraph [0058] of Applicants’ specification, combustion devices and devices that use stored gaseous attractants, such as CO<sub>2</sub>, are costly, but providing a device that produces an outflow consisting essentially of ambient air from the surrounding atmosphere and the diffused attractant – which Applicants have done – avoids the higher costs associated with such CO<sub>2</sub> emitting devices. (Paragraph [0058].) Hence, including a CO<sub>2</sub> generating device that adds carbon dioxide in excess of the amount found at ambient levels to the outflow of the claimed device does materially alter the basic and novel characteristics of the invention, as claimed in independent claims 1 and 26, and dependent claim 37. This is because such an addition necessarily adds significant cost to the device, which defeats one of the main purposes of Applicants’ invention.

Accordingly, Applicants respectfully submit that independent claims 1 and 26, and dependent claim 37 are patentable over Wigton in view of Prather because the combination of Wigton and Prather does not disclose or suggest an outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein, as recited by claims 1, 26, and 37 and that the rejection to independent claims 1 and 26, and dependent claim 37 should be reversed.

**3. The References do not Teach a Flow of the  
Outflow Through the Receptacle (Claims 1, 26)**

Independent claim 1 recites “...the outflow flows through the receptacle for exposure to the insect attractant....” (Emphasis added.) Independent claim 26 recites “flowing the outflow through the attractant receptacle for exposure to the insect attractant.” (Emphasis added.) The combination of Wigton and Prather does not disclose or suggest these features.

Both Wigton and Prather teach the use of an open vial that sits within a compartment of the respective device. Wigton expressly teaches that

A small open vial 134 (FIG. 3) containing a volatile insect attractant can be placed in either of enclosures 16 or 18. The evaporating compound will be drawn into the exhaust flow by exhaust fan 64.

(Wigton at col. 9, lns. 12-16 (emphasis added).) Hence, the exhaust of Wigton does not flow through the receptacle for exposure to the insect attractant. Instead, Wigton’s volatile insect attractant evaporates out of the vial and is drawn into the exhaust flow. Prather teaches the use of a holder 20 for a container 18 of liquid scent (Prather at col. 2, lns. 31-33) for attracting deer or other animals. (Prather at col. 1, lns. 33-36.) A heater 25 is used to heat the liquid scent to create a vapor that is mixed with the air that travels through the dispenser. (Prather at col. 2, lns. 36-58 and col. 3, lns. 3-6.)

Accordingly, Applicants respectfully submit that independent claim 1 is patentable over Wigton in view of Prather for the additional reason that the combination of Wigton and Prather does not disclose or suggest a device for attracting and trapping insects that includes, *inter alia*, “an attractant receptacle in which the supply of diffusible insect attractant is received, the attractant receptacle being positioned such that the outflow flows through the receptacle for exposure to the insect attractant,” as recited by claim 1, and that the rejection to claim 1 should be reversed for this additional reason.

In addition, Applicants respectfully submit that claim 26 is patentable over Wigton in view of Prather for the additional reason the combination of Wigton and Prather does not disclose or suggest a method for attracting and capturing flying insects that includes, *inter alia*, “flowing the outflow through the attractant receptacle for exposure to the insect attractant,” as recited by claim 26, and that the rejection to claim 26 should be reversed for this additional reason.

**4. The References do Not Teach Adjustable Openings  
in the Attractant Receptacle (Claims 11, 29, 32)**

Independent claim 32 recites a device for attracting and capturing flying insects that includes, *inter alia*, an

attractant receptacle having at least one adjustable opening, the adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant....

(Emphasis added.) Dependent claims 11 and 29 are also directed to the adjustable opening. The Examiner has conceded that neither Wigton nor Prather show an adjustable opening for the attractant. (See Office Action mailed April 5, 2005, page 4, Ins. 17-18.) Indeed, the Examiner has failed to rely on a single reference for teaching this feature. Instead, the Examiner merely asserts that “it would have been

obvious to employ an adjustable opening since it is obvious to make openings adjustable as stated by *In re Stevens* above.” (See Office Action mailed April 5, 2005, page 4, lns. 18-20.)

As was set forth in the Amendment After Final, which was filed on June 3, 2005, the court in *In re Stevens* held that “adjustability, where needed, is not a patentable advance.” *In re Stevens*, 101 USPQ 284, 285 (CCPA 1954). The court also explained that the need for adjustment in a fishing rod had been long recognized as desirable. *Id.* In that case, an adjustable fishing rod was already known, and a single pivot was replaced by a universal joint. *Id.* In contrast, neither Wigton nor Prather disclose or even remotely suggest that their open vials that hold liquid scents are adjustable, or that there is any need for them to be adjustable.

As is clearly explained in MPEP §2144, the facts in a prior legal decision must be sufficiently similar for the Examiner to use the rationale used by the court. *In re Stevens* does not apply to the present case, because, unlike the court in that case, the Examiner has not demonstrated any need for the recited “adjustable opening.”

Moreover, the Examiner has failed to cite any motivation or suggestion for modifying the prior art to provide the claims “adjustable opening.” All that the Examiner has relied on is mere speculation and inapposite case law. This is insufficient to support a *prima facie* case of obviousness, as discussed above. See, e.g., *In re Fine*, 837 F.2d 1071, 1074-75, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988); *In re Mills*, 916 F.2d 680, 682-83, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990).

Accordingly, Applicants respectfully submit that independent claim 32 and dependent claims 11 and 29 are patentable over Wigton in view of Prather, and respectfully request that the rejection to independent claim 32 and dependent claims 11 and 29 be reversed.

**5. The References do Not Teach a Solid or Semi-Solid  
Diffusible Insect Attractant (Claims 2, 27, 33)**

Claim 2 depends from claim 1, claim 27 depends from claim 26, and claim 33 depends from claim 32. Claims 2, 27, and 33 each add “wherein the diffusible insect attractant is a solid or semi-solid insect attractant.” In rejecting claims 2, 27, and 33, the Examiner conceded that both Wigton and Prather disclose a liquid scent, but nonetheless rejected claims 2, 27, and 33 by stating “it would have been obvious to employ a solid or semi-solid scent since the function is the same and no stated problem is solved.” (See Office Action mailed April 5, 2005, page 3, lns. 3-5.) As clearly stated in the MPEP, “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP § 2143.03, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added). However, the Examiner has not cited a single reference or other piece of evidence to support this conclusory assertion.

Accordingly, Applicants respectfully submit that claims 2, 27, and 33 are patentable over Wigton in view of Prather, and respectfully request that the rejection to claims 2, 27, and 33 be reversed for the aforementioned additional reasons.

**6. The References do Not Teach a Heater Element that  
Encircles a Supply of Solid or Semi-Solid Diffusible  
Insect Attractant (Claims 12, 15, 18)**

Claim 12 depends from claim 11, claim 15 depends from claim 2, and claim 18 depends from claim 17. Claims 12 and 18 add “wherein the heater element encircles the supply of the solid or semi-solid diffusible insect attractant.” Claim 15 adds “wherein the heater encircles the supply of the solid or semi-solid diffusible insect attractant.” As conceded by the Examiner, neither Wigton nor Prather discloses a heating element encircling the insect attractant. Instead, the Examiner merely

asserts that “it would have been obvious to encircle the attractant to maximize heat transfer to the attractant.” (See Office Action mailed April 5, 2005, page 3, Ins. 19-20.) However, the Examiner has not cited a single reference as to why such an arrangement would be obvious. All that the Examiner has relied on is mere speculation. This is insufficient to support a *prima facie* case of obviousness, as discussed above. See, e.g., *In re Fine*, 837 F.2d 1071, 1074-75, 5 U.S.P.Q.2d 1596, 1598-99 (Fed. Cir. 1988); *In re Mills*, 916 F.2d 680, 682-83, 16 U.S.P.Q.2d 1430, 1432 (Fed. Cir. 1990).

Accordingly, Applicants respectfully submit that claims 12, 15, and 18 are patentable over Wigton in view of Prather, and respectfully request that the rejection to claims 12, 15, and 18 be reversed for these additional reasons.

**7. The References do Not Teach a Solid or Semi-Solid  
Diffusible Insect Attractant that has an Internal Bore  
and a Heater Element Positioned Within the Internal Bore  
(Claims 13, 16, 19)**

Claim 13 depends from claim 11, claim 16 depends from claim 2, and claim 19 depends from claim 17. Claims 13 and 19 add “wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater element is positioned within the internal bore.” Claim 16 adds “wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater is positioned within the internal bore.” In rejecting these claims, the Examiner stated “Prather shows a heating element placed in a liquid attractant so it would have been obvious to locate [sic] a heating element in the middle of the attractant such as in an [sic] internal bore.” (See Office Action mailed April 5, 2005, page 3, Ins. 20-22.)

However, Prather does not even teach an attractant with an internal bore. In Prather, the attractant is a liquid. There can be no internal bore. Thus, this claim limitation is clearly missing from the references.

Absent Applicants' disclosure, it would not have been obvious to position a heating element in an internal bore of a solid or semi-solid insect attractant, as claimed in claims 13, 16, and 19. Accordingly, Applicants respectfully submit that claims 13, 16, and 19 are patentable over Wigton in view of Prather, and respectfully request that the rejection to claims 13, 16, and 19 be reversed for these additional reasons.

**8. The Examiner's Rejection Lacks the Requisite  
Motivation or Suggestion for Combining  
Wigton and Prather (Claims 1-42)**

In addition to not teaching all of the limitations of claims 1-42, the Examiner has not cited any objective evidence of a motivation or suggestion to combine and modify Wigton and Prather as asserted. That is, the Examiner cites no reason why one of ordinary skill in the art would be motivated to combine and modify Wigton and Prather to arrive at the inventions of claims 1-42.

Evidence of a proper motivation is required to support a *prima facie* case of obviousness. See *In re Fine*, 837 F.2d 1071, 1074-75, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988) (holding that the Board of Patent Appeals & Interferences erroneously upheld rejection of claims where prior art references failed to disclose a material limitation of the claims and that there was no evidence supporting the Board's assertion that the art showed a motivation or suggestion to combine references); see also MPEP § 2143.03. It is not sufficient to simply cite references that could be capable of being combined to establish a *prima facie* case of obviousness; instead, the Examiner must establish a motivation or suggestion to combine the references as asserted. See *In re Mills*, 916 F.2d 680, 682-83, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990); *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (stating that PTO is required to cite evidence,

either in the references themselves or in the knowledge generally available to one skilled in the art, to support assertions underlying the *prima facie* case of obviousness); *see also* MPEP § 2143.01.

Here, no objective evidence as to why one of ordinary skill in the art would make the asserted combination has been provided. More importantly, combining Wigton and Prather makes no sense. Specifically, because Wigton uses combustion to generate the carbon dioxide-laden exhaust gas, the exhaust gas flowing past an open vial of liquid chemical attractant will be above ambient temperature. Thus, the chemical attractant will already be heated. There is simply no reason to provide the Wigton device with a heater to heat the chemical attractant when it is already heated by the exhaust gas outflow.

This lack of any cogent reason to combine Wigton and Prather in view of the fact that such a combination is duplicative is a fundamental shortcoming of the Examiner's rejections, and shows that the Examiner is simply engaging in a piecemeal and hindsight reconstruction of the prior art. This is impermissible. *See In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965) ("Such piecemeal reconstruction of the prior art patents in light of appellant's disclosure is contrary to the requirements of 35 U.S.C. § 103.")

Thus, for this additional reason, the rejection to claims 1-42 should be reversed.



## VIII. CONCLUSION

In conclusion, the Applicants respectfully submit that, based on the reasons advanced above, all pending claims 1-42 are patentable. Accordingly, the Applicants respectfully request reversal of the Examiner's rejection with respect to these claims.

Respectfully submitted,

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## **CLAIMS APPENDIX**

Claims to be reviewed on appeal are claims 1-42, which are as follows:

1. A device for attracting and capturing flying insects, the device comprising:

a frame providing at least one outlet opening and at least one inlet opening, each of the outlet and inlet openings being communicated to a surrounding atmosphere;

an insect trap chamber communicated to the surrounding atmosphere through the at least one inlet opening;

a supply of a diffusible insect attractant;

at least one airflow generator operable to generate (a) an outflow flowing outwardly to the surrounding atmosphere through the at least one outlet opening, the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply and (b) an inflow flowing inwardly from the surrounding atmosphere through the at least one inlet opening and then into the insect trap chamber, thereby enabling the inflow to draw insects attracted to the device by the insect attractant diffused in the outflow into the insect trap chamber;

an attractant receptacle in which the supply of diffusible insect attractant is received, the attractant receptacle being positioned such that the outflow flows through the receptacle for exposure to the insect attractant, the attractant receptacle being constructed to enable the insect attractant to be removed therefrom for replacement; and

an electrically-powered heater disposed proximate the attractant receptacle, the heater being operable to heat the supply of the diffusible insect attractant in the attractant receptacle above ambient temperature so as to facilitate diffusion of the insect attractant in the outflow.

2. A device according to claim 1, wherein the diffusible insect attractant is a solid or semi-solid insect attractant.

3. A device according to claim 2, wherein the heater element is positioned immediately adjacent the supply of the solid or semi-solid diffusible insect attractant.

4. A device according to claim 3, wherein said insect trap chamber includes a perforated trap having a plurality of perforations sized to enable the inflow drawn into said insect trap chamber to flow therethrough but to prevent passage of the insects therethrough.

5. A device according to claim 4, wherein the at least one outlet opening is communicated to the insect trap chamber by an outflow path, wherein the at least one inlet opening is communicated to the insect trap chamber by an inlet path, and wherein the inflow flowing through the perforated trap flows into the outflow path to become the outflow.

6. A device according to claim 5, wherein the at least one airflow generator comprises a fan system positioned between the outlet path and the insect trap chamber, the fan system being arranged to generate both the inflow and the outflow by drawing ambient air inwardly from the surrounding atmosphere through the at least one inlet opening, the inflow path and the perforated trap, and then forcing the ambient air outwardly to the surrounding atmosphere through the outlet path and the at least one outflow opening.

7. A device according to claim 6, wherein said fan system includes a single fan.

8. A device according to claim 7, further comprising a power cord with a connector on a free end thereof, said cord being electrically connected to said fan and said connector being configured for connection to an electrical power supply for supplying electricity to said fan.

9. A device according to claim 7, further comprising one or more replaceable batteries for supplying electrical power to said fan.

10. A device according to claim 7, further comprising one or more solar arrays for supplying electrical power to said fan.

11. A device according to claim 2, wherein the attractant receptacle has at least one adjustable opening, the at least one adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant.

12. A device according to claim 11, wherein the heater element encircles the supply of the solid or semi-solid diffusible insect attractant.

13. A device according to claim 11, wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater element is positioned within the internal bore.

14. A device according to claim 11, wherein the heater is a resistance heater.

15. A device according to claim 2, wherein the heater encircles the supply of the solid or semi-solid diffusible insect attractant.

16. A device according to claim 2, wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater is positioned within the internal bore.

17. A device according to claim 2, wherein the heater is a resistance heater.

18. A device according to claim 17, wherein the heater element encircles the supply of the solid or semi-solid insect attractant.

19. A device according to claim 17, wherein the solid or semi-solid diffusible insect attractant and has an internal bore, and wherein the heater is positioned within the internal bore.

20. A device according to claim 1, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

21. A device according to claim 2, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

22. A device according to claim 6, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

23. A device according to claim 11, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

24. A device according to claim 15, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying

along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

25. A device according to claim 16, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

26. A method for attracting and capturing flying insects, the method comprising:

providing a device comprising (a) an insect trap chamber, (b) a supply of a diffusible insect attractant, (c) at least one electrically-powered airflow generator, (d) an attractant receptacle in which the supply of the diffusible insect attractant is received, and (e) an electrically-powered heater disposed proximate the attractant receptacle;

heating the supply of the diffusible insect attractant above ambient temperature with the electrically-powered heater to facilitate diffusion of the insect attractant;

generating, with the at least one airflow generator, an outflow flowing outwardly through at least one outflow opening provided on the device and communicated to a surrounding atmosphere, the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply thereof;

drawing, with the at least one airflow generator, an inflow flowing inwardly through at least one inflow opening and then into the insect trap chamber, the at least one inflow opening being provided on the device and communicated to the surrounding atmosphere, thereby enabling the inflow to draw insects attracted to the device by the insect attractant diffused in the outflow into the insect trap chamber, and

flowing the outflow through the attractant receptacle for exposure to the insect attractant.

27. A method according to claim 26, wherein the diffusible insect attractant is a solid or semi-solid insect attractant.

28. A method according to claim 27, wherein the insect trap chamber includes a perforated trap having a plurality of perforations and wherein the inflow is drawn through the perforations of the trap, the perforations being sized to enable the inflow to flow therethrough but to prevent passage of the insects therethrough.

29. A method according to claim 27, wherein the attractant receptacle has at least one adjustable opening,

wherein the method further comprises selectively adjusting the adjustable opening to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant.

30. A method according to claim 26, wherein the inflow is drawn substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the insect trap chamber by the inflow.

31. A method according to claim 27, wherein the inflow is drawn substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the insect trap chamber by the inflow.

32. A device for attracting and capturing flying insects, the device comprising:

a frame providing at least one inlet opening communicated to a surrounding atmosphere;

an insect trap chamber communicated to the surrounding atmosphere through the at least one inlet opening;

a supply of a diffusible insect attractant;

an attractant receptacle, the supply of the diffusible insect attractant being received within the attractant receptacle;

the attractant receptacle having at least one adjustable opening, the adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant; and

at least one airflow generator operable to generate an inflow flowing inwardly from the surrounding atmosphere through the at least one opening and then into the insect trap chamber, thereby enabling the inflow to draw insects attracted to the device by the insect attractant into the insect trap chamber.

33. A device according to claim 32, wherein the diffusible insect attractant is a solid or semi-solid insect attractant.

34. A device according to claim 32, wherein the insect trap chamber includes a perforated trap having a plurality of perforations sized to enable the inflow drawn into the insect trap chamber to flow therethrough but to prevent passage of the insects therethrough.

35. A device according to claim 32, wherein the frame provides at least one outflow opening communicated to the surrounding atmosphere,

the at least one airflow generator also being operable to generate an outflow flowing outwardly to the surrounding atmosphere through the at least one outflow opening.

36. A device according to claim 35, wherein the attractant receptacle and the insect attractant are positioned such that the attractant diffuses into the outflow.

37. A device according to claim 36, wherein the outflow consists essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein.

38. A device according to claim 37, wherein the insect trap chamber includes a perforated trap having a plurality of perforations sized to enable the inflow



drawn into the insect trap chamber to flow therethrough but to prevent passage of the insects therethrough.

39. A device according to claim 38, wherein the at least one outflow opening is communicated to the insect trap chamber by an outflow path, wherein the at least one inlet opening is communicated to the insect trap chamber by an inlet path, and wherein the inflow flowing through the perforated trap flows into the outflow path to become the outflow.

40. A device according to claim 39, wherein the at least one airflow generator comprises a fan system positioned between the outflow path and the insect trap chamber, the fan system being arranged to generate both the inflow and the outflow by drawing ambient air inwardly from the surrounding atmosphere through the at least one inlet opening, the inflow path, and the perforated trap, and then forcing the ambient air outwardly to the surrounding atmosphere through the outlet path and the at least one outflow opening.

41. A device according to claim 40, wherein the fan system includes a single fan.

42. A device according to claim 32, further comprising an electrically powered heater operable to heat the supply of the diffusible insect attractant above ambient temperature so as to facilitate diffusion of the insect attractant.



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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

## FEE TRANSMITTAL for FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 500

### Complete if Known

Application Number	10/686,815
Filing Date	October 17, 2003
First Named Inventor	EMMA AMELIA DURAND
Examiner Name	Rowan, Kurt C.
Art Unit	3643
Attorney Docket No.	009554-0306194

### METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):

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### FEE CALCULATION

#### 1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fee Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150 <del>100</del>	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

#### 2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims - 20 or HP = Extra Claims X Fee (\$) = Fee Paid (\$) Multiple Dependent Claims Fee (\$) Fee Paid (\$)  
HP = highest number of total claims paid for, if greater than 20  
Indep. Claims - 3 or HP = Extra Claims X Fee (\$) = Fee Paid (\$)  
HP = highest number of independent claims paid for, if greater than 3

#### 3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets - 100 = Extra Sheets /50= Number of each additional 50 or fraction thereof x Fee (\$) = Fee Paid (\$)  
250.00

#### 4. OTHER FEE(S)

Non-English Specification, 130 fee (no small entity discount)

Other: Appeal Brief

Fee Paid (\$)

500.00

#### SUBMITTED BY

Signature		Registration No. (Attorney/Agent)	47418	Telephone	703770.7661
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